

Calendar

Thursday, February 3

THERE WILL BE NO THEORETICAL PHYSICS SEMINAR THIS WEEK

3:30 p.m. DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

THERE WILL BE NO ACCELERATOR PHYSICS AND TECHNOLOGY SEMINAR TODAY

Friday, February 4

3:30 p.m. DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

4:00 p.m. Joint Experimental Theoretical Physics Seminar - 1 West

Speaker: B. Kayser, Fermilab

Title: APS Neutrino Study

8:00 p.m. Fermilab Public Lecture Series - Auditorium

P. Grannis of The State University of New York at Stony Brook presents:

Experiments at Fermilab: Understanding Matter at the Smallest Scale

Tickets: \$5

Weather



Mostly Sunny **41°/21°**

[Extended Forecast](#)

[Weather at Fermilab](#)

Current Security Status

[Secon Level 3](#)

Wilson Hall Cafe

Fermilab offers Family Open House, Sunday, Feb. 13, 2005

Visitors need to register by February 10 to receive free tickets



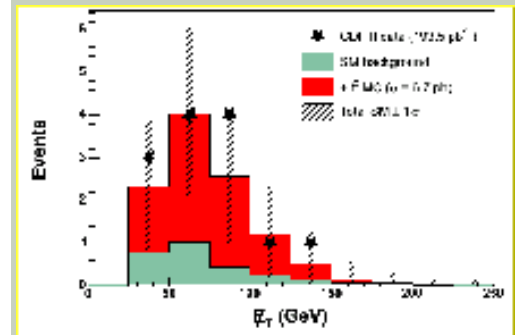
A liquid-nitrogen show will be one of the featured events at the Family Open House on February 13. (Click on image for larger version.)

From historical scientists to hands-on activities, from an accelerator tour to a liquid-nitrogen show, the Family Open House on Sunday, February 13 at Fermilab offers something for the entire family.

Organized by the Fermilab Education Office, the Family Open House celebrates the World Year of Physics 2005, which marks the anniversary of three revolutionary publications by Albert Einstein one hundred years ago. Visitors can join tours of two small accelerators on the Fermilab site, and they can visit the viewing area on the 15th floor of Wilson Hall, where Fermilab physicists will be available to talk and answer questions. A new exhibit, "The Quantum Universe," is open as well. As a special surprise,

Fermilab Result of the Week

Following Up on the Mysteries of Run I



The distribution of missing transverse energy expected from the Standard Model compared with that observed in the CDF Run II top dilepton sample. (Click on image for larger version.)

Searching for new physics often involves looking for excesses of events over Standard Model expectations, but CDF recently submitted a paper describing a search using a different, complementary technique.

The analysis has its history in the sample of top quark pair decays containing two leptons collected in Run I of the Tevatron. CDF and DZero observed not only a slight excess of events in this sample, but also some peculiar kinematic properties in some of the events — such as anomalously large missing energy. These peculiarities led some to speculate whether there was "something else" lurking in the top dilepton sample.

Awaiting the Run II data, a team of CDF researchers chose four kinematic variables to study (one of which is shown in the accompanying figure) and developed a statistical technique to isolate subsets of events in which these variables seemed most inconsistent with

Thursday, February 3

Santa Fe Black Bean Soup

Marinara Meatball Sub \$4.75

Stuffed Manicotti \$3.75

Sauteed Liver & Onions \$3.75

Baked Ham & Swiss on a Ciabatta Roll
\$4.75

California Pizza \$2.75

Crispy Fried Chicken Ranch Salad \$4.75

The Wilson Hall Cafe now accepts Visa,
Master Card, Discover and American
Express at Cash Register #1.

[Wilson Hall Cafe Menu](#)

[Chez Leon](#) will be closed through January
and February

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visitors can "meet" four famous scientists
of the past 100 years and learn more
about their accomplishments.

[read more](#)

Osteoporosis Starts Early - Prevention Should, Too

Even though King Tut's recently-
examined bones have survived for over
3,300 years, it took amazing foresight of
mummy preservation and protection. We
could all take some tips on caring for our
bones from King Tut — even if it's just for
while we're alive.

"Many people don't realize that the
decrease in bone mass that causes
osteoporosis starts early — even as
young as 30," says Bernie Dugan



An osteoporosis
screening can give
you information that
will help you main-
tain a strong, straight
spine. (Image from
A.D.A.M, Inc.)

The presentation,
called "Building Better
Bones," will take place on Tuesday,
February 15 from noon until 1:00 p.m. in
the Curia II Conference Room. Jody
Springsteen, a nurse with the Kane
County Health Department, will talk about
the how to determine your risk factors and
methods of prevention. After the lecture,

of Fermilab's Lab
Services, who is
organizing an
osteoporosis lecture
and screening at
Fermilab. "There are
many things in life
that you can't control,
but you can control
this. We all want to
remain active as we
age, but we need to
give thought about
staying healthy while
we're still young."

The presentation,
called "Building Better

the Standard Model. If the effect observed
in Run I was something more than just a
statistical fluctuation, this method would be
ready to catch its reappearance in Run II.

Unfortunately, when CDF "opened the
box" on the larger Run II data sample, no
particular subset stood out pointing the
way to new physics. The sample was not
without its own set of peculiarities, but a
quantitative assessment showed that it
was nothing that couldn't be explained by
the Standard Model and statistics. The
Standard Model has passed another test
— but that's not always the answer we
want to hear!



(Left to Right) Originally from Rochester,
Andy Hocker (FNAL), Paul Tipton
(Rochester), and Andrew Ivanov (UC Davis)
performed this measurement. (Click on image
for larger version.)

[Result of the Week Archive](#)

Milestones

- Ronald L. Norton, who worked at
Fermilab

from 1970 until he
retired in October of
1996, died on January
31 at his home with his
family at his bedside. He
was 66. Norton worked
for the Cryogenics

Systems group in the
Accelerator Division. While at Fermilab,
Norton was the Task Manager for the
installation of the Tevatron Transferline,
High and low Pressure Helium headers,



[Ron Norton](#)

Fermilab employees can receive a free bone density screening, although space is limited.

"The screening gives a baseline of information which a woman and her doctor can use to assess future changes," says Dugan. The screening is like an ultrasound: it's quick, painless and non-invasive. Reservations are required for the free screening, and the deadline to register is Thursday, February 10. To make a reservation, contact Dugan at 3591 or by [e-mail](#).

Accelerator Update

January 31 - February 2

- During this 48 hour period Operations established two stores that provided approximately 32 hours and 49 minutes of luminosity to the experiments.
- A ComEd power glitch tripped off the TEL and ARF1, but store and stack survived

[Read the Current Accelerator Update](#)

[Read the Early Bird Report](#)

[View the Tevatron Luminosity Charts](#)

In the News

From *The New York Times*, February 1, 2005

For Some Girls, the Problem With Math Is That They're Good at It

By Cornelia Dean

A few years ago, I told Donald Kennedy, editor of the journal *Science*, that I wanted to write an essay for his publication. It would say, "Anyone who thinks that sexism is no longer a problem in science has never been the first woman science editor of *The New York Times*."

and N₂ return header. He supervised the installation of the Cryogenic piping and initial testing of the DZero detector central calorimeter. He also supervised the modification of cryogenic transferline and piping headers for the CDF and DZero detector installation. Norton was also the Task Manager for the installation and construction of the Tevatron satellite refrigerators and compressor buildings.

Announcements

World Year of Physics Events at Fermilab

Curious about how Fermilab is celebrating the World Year of Physics 2005? Fermilab has a new [World Year of Physics Web page](#) that lists all of the events in one place. Check it frequently for new updates!

Fermilab Public Lecture Series

Paul Grannis, of SUNY at Stony Brook, will present "Experiments at Fermilab: Understanding Matter at the Smallest Scale" on Friday, February 4 at 8:00 p.m. Tickets are \$5.00.

[more information](#)

When Irish Cows Are Smiling - Discount Tickets

Fermilab's Recreation Office is offering discount tickets for "When Irish Cows are Smiling." The deadline to sign up is March 3. Dinner and the show are on March 19, 2005 at 7:00 PM at the Milk Pail Restaurant.

[more information](#)

Free Introductory Tai Chi Class

A free introductory Tai Chi class will be offered in the Recreation Facility on Friday, February 18 from 6:30 AM to 7:15 AM. Registration for the free class can be

I never wrote the essay. But the continuing furor over Dr. Lawrence H. Summers's remarks on women and science reminds me why I thought of it.

[read more](#)

made by calling the Recreation Office at X5427 or X2548. You must pre-register. You do not need to be a member of the Recreation Facility for this introductory class, however, you will need to be one to participate in the scheduled 8-week session. Deadline to register for this class is February 11.

[Upcoming Activities](#)